

**REMARKS****Summary of the Office Action**

In the Office Action dated May 21, 2003, claims 26-28 and 40-42 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 18-43 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 4,943,093 to Melling et al. (hereinafter "Melling").

**Summary of the Response to the Office Action**

Applicant traverse the rejections under 35 U.S.C. § 103(a). Applicants cancel claims 26-28 and 40-42 without prejudice or disclaimer. Accordingly, claims 18-25, 29-39 and 43 are remain pending in this application.

**The Rejections under 35 U.S.C. § 112, second paragraph**

Claims 26-28 and 40-42 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants cancel claims 26-28 and 40-42 without prejudice or disclaimer. In view of the cancellation of these claims, the rejections of claims 26-28 and 40-42 under 35 U.S.C. § 112, second paragraph, are not moot. Accordingly, Applicants respectfully request that the rejection of claims 26-28 and 40-42 under 35 U.S.C. § 112, second paragraph, be withdrawn.

**The Rejection under 35 U.S.C. § 103(a)**

Claims 18-43 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Melling. Applicants respectfully traverse this rejection as follows.

Applicants respectfully submit that Melling describes security papers comprising security strips with metallic areas. Particular embodiments are described that exhibit fluorescent properties, as discussed at column 2, lines 43-45, lines 48-53, line 56, and lines 59-60, and at column 4, lines 33-40 in Melling. Melling further mentioned a uniform coating of a dichroic film as discussed at column 5, lines 4-8. Applicants submit that the dichroic film of Melling is presented as an alternative to a fluorescent coating, as discussed in column 6, lines 60-61.

Applicants respectfully submit that photoluminescence relates to a property of a molecule or a material, which emits light (in the visible, UV or the infrared range) upon irradiation with light. Applicants further submit that, although the irradiated light is usually in the visible, UV or the infrared range, it may also be x-ray or electron beam irradiation. Fluorescence is one particular form of photoluminescence. Another possible form of photoluminescence is phosphorescence, which is also discussed in Melling at column 2, lines 51-53.

Applicants submit that, on the contrary, dichroism is used in relation to two completely different phenomena. In a first phenomenon as described in Melling, dichroism describes the property that *colour perception* for a corresponding coating changes in accordance with the viewing angle and/or with the angle of the irradiated light. This phenomenon is discussed at column 5, lines 5-8 of Melling. Holograms are typical examples of that kind of dichroism. The effect observed on pearlescent surfaces is another example of that type of dichroism. Applicants

respectfully submit that there is no relation between the above-mentioned type of dichroism and photoluminescence.

A second phenomenon referred to as dichroism is the property of either absorption or emission for a corresponding material depending on light *polarization*. For instance, the degree of absorption of a material may depend on the direction of polarization of irradiated light. Moreover, a material may generate polarized emission upon irradiation. Applicants respectfully submit that this type of dichroism is not directly related to photoluminescence.

Applicants respectfully submit that independent claims 18 and 30 relate to dichroism of the second type as discussed above. Specifically, Applicants submit that independent claim 18 relates to a security item with at least the feature of linearly polarized emission with a dichroic ratio of 5 or more. Independent claim 30 relates to a security item with at least the feature of linearly polarized absorption upon irradiation with light. Applicants respectfully submit that, in claims 18 and 30, both photoluminescence and the second type of dichroism are present.

Accordingly, the instant invention as recited in independent claims 18 and 30 differs from Melling in at least the features that both photoluminescence and the second type of dichroism are present in the form of polarized emission in claim 18 or polarized absorption in claim 30.

Applicants respectfully submit that the particular features of between the instant invention as recited in claims 18 and 30 lead to the unexpected and inventive result that the security devices of the instant invention exhibit a pronounced dark/bright appearance when irradiated and viewed under a rotating polarization filter or when irradiated with light or a rotating polarization direction. Moreover, the security devices of the instant invention are very difficult to counterfeit.

Furthermore, Applicants respectfully submit that Melling does not mention a polarization effect. Moreover, the dichroism discussed in Melling relates merely to optically variable devices (OVD) rather than to polarization. Applicants submit that the OVD of Melling have been well-known in the field of security devices, specifically as applied to banknotes. Applicants further submit that a person in the art would not relate OVD to polarization effects, fluorescence, or general photoluminescence. There is no teaching or suggestion in the applied reference to use photoluminescence systems having the particular features of polarization effects as claimed, and resulting in the above-mentioned visual effects when used with a polarization filter during verification.

In view of the foregoing, Applicants respectfully submit that independent claims 18 and 30 are patentable over Melling. Moreover, Applicants submit that dependent claims 19-25, 29, 31-39 and 43 should be allowed for at least the same reasons as independent claims 18 and 30 upon which they depend, respectively. Claims 26-28 and 40-42 are canceled as set forth above. Thus, Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 18-25, 29-39 and 43 be withdrawn.

### **Conclusion**

In view of the foregoing, Applicants respectfully request reconsideration, reexamination of this application, withdrawal of all rejections and objections, and the timely allowance of all pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution.

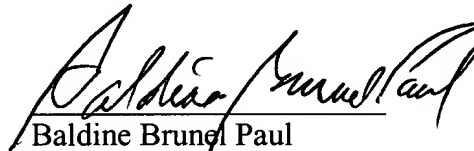
If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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